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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/849,304	05/07/2001	Junya Yada	206747US2	8669

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EXAMINER

LAMB, TWYLER MARIE

ART UNIT PAPER NUMBER

2622

DATE MAILED: 02/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/849,304

Applicant(s)

YADA, JUNYA

Examiner

Twyler M. Lamb

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8,9 and 14 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,10-13 and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-7, 10-13 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda et al. (Maeda) (US 5,899,614) in view of Ando (EP 0945780 A2).
4. With regard to claims 1 and 10, Maeda discloses a command data conversion device (printer control unit 1000) for use in a printing system (Figure 7, output apparatus, laser beam printer (LBP)), comprising: a command interpreter (output units 2 and 3) that receives print command data including commands to be used in print control and associated data and interprets contents of the print command data (col 3, lines 41-53); and a processor (output units 2 and 3) that receives at least either of the commands and the associated data and executes prescribed processing (col 3, lines 41-53), and wherein the command interpreter (output units 2 and 3) has command registers (nonvolatile memory 11) that can store multiple commands (which reads on

command table (col 3, lines 60-63), wherein the command registers (nonvolatile memory 11) are rewritable memories (col 4, lines 13-21) and one of the multiple commands stored in the command registers can be replaced with a new command when a code of the one command has changed (col 4, lines 13-21; col 5, lines 39-63).

Maeda does not expressly teach that the command is commonly used for a same type of printing system.

Ando discloses printer control circuit that include commands commonly used for a same type of printing system that are written to the memory (col 3, lines 9 – col 4, line 40; col 7, line 42 - col 9, line 56).

Maeda & Ando are combinable because they both control outputting devices.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Maeda to include commands commonly used for a same type of printing system as taught by Ando.

The suggestion/motivation for doing so would have been speed the processing of the printer by receiving the commands that have already been converted and can be utilized by the printer and storing the commands in the printer for use, so that the printer does not have to perform the conversions as taught by Ando in col 3, lines 9 – col 4, line 40; col 7, line 42 - col 9, line 56.

Therefore, it would have been obvious to combine Maeda with Ando to obtain the invention as specified in claims 1 and 10.

With regard to claim 3, Maeda also discloses wherein prior to the interpretation of the print command data, when the commands to be stored in the command registers

are supplied by an external device, the command interpreter stores in the command registers the commands to be stored (col 3, lines 1-6; col 3, lines 33-63).

With regard to claim 4, Maeda also discloses wherein the command data conversion device is an Application-specific Integrated Circuit (col 3, line 33 – col 7, line 1).

With regard to claim 5, Maeda also discloses wherein when first command data including a first data forwarding command and first image data expressed in terms of a first color system is supplied as the print command data, (i) the command interpreter sends the first image data to the processor, and (ii) the processor executes as the prescribed processing to convert the input first image data into second image data expressed in terms of a second color system (col 3, line 33 – col 7, line 1).

With regard to claims 15 and 17, Maeda discloses wherein when a command included in the print command data matches any of the multiple commands stored in the command registers, the command interpreter sends to the processor at least one of either the command or the associated data (col 5, lines 39 – col 7, line 3).

With regard to claims 16 and 18, Maeda does not expressly teach wherein the command interpreter comprises an application-specific integrated circuit (ASIC).

Ando discloses printer control circuit that includes wherein the command interpreter comprises an application-specific integrated circuit (ASIC) (col 3, lines 9 – col 4, line 40; col 7, line 42 - col 9, line 56).

Maeda & Ando are combinable because they both control outputting devices.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Maeda to include wherein the command interpreter comprises an application-specific integrated circuit (ASIC) as taught by Ando.

The suggestion/motivation for doing so would have been speed the processing of the printer by receiving the commands that have already been converted and can be utilized by the printer and storing the commands in the printer for use, so that the printer does not have to perform the conversions as taught by Ando in col 3, lines 9 – col 4, line 40; col 7, line 42 - col 9, line 56.

Therefore, it would have been obvious to combine Maeda with Ando to obtain the invention as specified in claims 16 and 18.

With regard to claims 6 and 12, Maeda does not teach wherein the second image data is expressed in terms of a color system using ink colors used in the printing system.

ANDO discloses a print system that includes wherein the second image data is expressed in terms of a color system using ink colors used in the printing system (col 9, line 15 col 10, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda to include the second image data is expressed in terms of a color system using ink colors used in the printing system as taught by ANDO. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda by the teaching of ANDO to process full color raster data as taught by ANDO in col 9, line 15 col 10, line 14.

With regard to claims 7 and 13, Maeda does not teach further comprising a data synthesizer that synthesizes multiple blocks of image data, and wherein when second command data comprising a second data forwarding command and the second image data expressed in terms of the second color system is supplied as the print command data, (iii) the command interpreter sends to the data synthesizer the second image data provided with the second data forwarding command, (iv) the processor generates third image data expressed in terms of the second color system through conversion of the first image data, and (v) the data synthesizer synthesizes the second image data supplied by the command interpreter and the third image data supplied by the processor.

ANDO discloses a print system that includes further comprising a data synthesizer that synthesizes multiple blocks of image data, and wherein when second command data comprising a second data forwarding command and the second image data expressed in terms of the second color system is supplied as the print command data, (iii) the command interpreter sends to the data synthesizer the second image data provided with the second data forwarding command, (iv) the processor generates third image data expressed in terms of the second color system through conversion of the first image data, and (v) the data synthesizer synthesizes the second image data supplied by the command interpreter and the third image data supplied by the processor (col 9, line 15 col 10, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda to include the second image data is expressed

in terms of a color system using ink colors used in the printing system as taught by ANDO. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda by the teaching of ANDO to process full color raster data as taught by ANDO in col 9, line 15 col 10, line 14.

With regard to claim 11, Maeda does not teach wherein when first command data comprising a first data forwarding command and first image data expressed in terms of a first color system is supplied as the print command data, (i) the command interpreter sends the first image data to the processor, and (ii) the processor executes as the prescribed processing to convert the input first image data into second image data expressed in terms of a second color system.

ANDO discloses a print system that includes wherein when first command data comprising a first data forwarding command and first image data expressed in terms of a first color system is supplied as the print command data, (i) the command interpreter sends the first image data to the processor, and (ii) the processor executes as the prescribed processing to convert the input first image data into second image data expressed in terms of a second color system (col 9, line 15 col 10, line 14).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda to include wherein when first command data comprising a first data forwarding command and first image data expressed in terms of a first color system is supplied as the print command data, (i) the command interpreter sends the first image data to the processor, and (ii) the processor executes as the prescribed processing to convert the input first image data into second image data

Art Unit: 2622

expressed in terms of a second color system as taught by ANDO. It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified Maeda by the teaching of ANDO to process full color raster data as taught by ANDO in col 9, line 15 col 10, line 14.

Allowable Subject Matter

5. Claims 8, 9 and 14 are allowed.

Reasons For allowance

Examiner agrees with Applicant's Arguments on page 10, lines 1-7 of Amendment filed on 4/21/05. The prior art of record does not disclose "a counter that counts a number of the image data sets received by the processor, and ink color data registers that store multiple ink color data indices indicating which of multiple inks is to be used, and into which multiple ink color data indices may be written, nor the processor that generates data by adding to each of the image data sets a corresponding one of the ink color data indices stored in the registers in accordance with the value of the counter, as recited in claim 8 and similarly in claim 14.

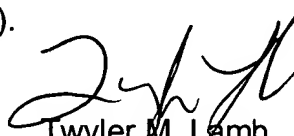
Response to Arguments

6. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Twyler M. Lamb whose telephone number is 703-308-8823. The examiner can normally be reached on M-Thurs 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on 703-305-4712. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Twyler M. Lamb
Examiner
Art Unit 2622